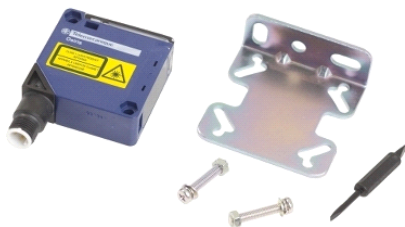


## Product datasheet

### Characteristics

# XUK8AKSNM12

photo-electric laser sensor - XUK - BGS - Sn 1m - 12..24VDC - M12



### Main

Range of product	OsiSense XU
Series name	General purpose single mode
Electronic sensor type	Photo-electric sensor
Sensor name	XUK
Sensor design	Compact 50 x 50
Detection system	Diffuse with background suppression
Material	Plastic
Type of output signal	Discrete
Supply circuit type	DC
Wiring technique	3-wire
Discrete output type	PNP or NPN
Discrete output function	1 NO or 1 NC programmable
Electrical connection	1 male connector M12, 4 pins
Product specific application	-
Emission	Infrared laser, modulated diffuse with background suppression (class 1)
[Sn] nominal sensing distance	1 m diffuse with background suppression

### Complementary

Enclosure material	PC
Lens material	PMMA
Maximum sensing distance	1 m diffuse with background suppression
Minimum object diameter for detection	2 mm
Output type	Solid state
Wire insulation material	PVC
Status LED	1 LED (green) for supply 1 LED (yellow) for output state
[Us] rated supply voltage	12...24 V DC with reverse polarity protection
Supply voltage limits	10...36 V DC
Switching capacity in mA	<= 100 mA (overload and short-circuit protection)
Switching frequency	<= 250 Hz
Voltage drop	<= 1.5 V (closed state)
Current consumption	<= 30 mA (no-load)
Delay first up	< 300 ms
Delay response	< 2 ms
Delay recovery	< 2 ms
Setting-up	Sensitivity adjustment by potentiometer
Depth	50 mm
Height	50 mm
Width	18 mm
Product weight	0.035 kg
Kit composition	With XUZA51 bracket fixing

### Environment

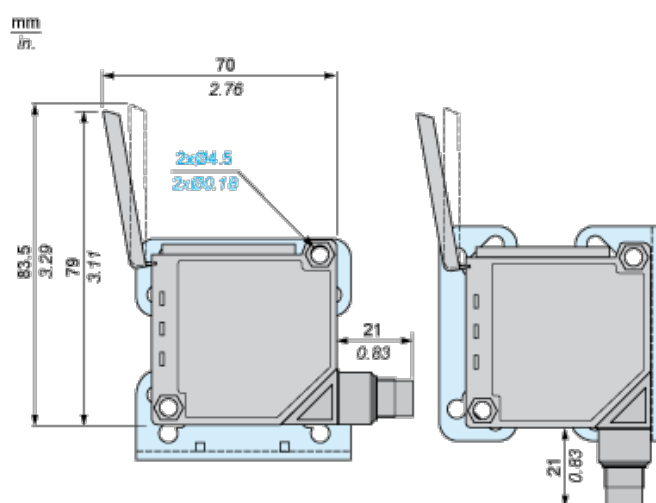
The information provided in this documentation contains general descriptions and/or technical characteristics of the performance of the products contained herein. This documentation is not intended as a substitute for and is not to be used for determining suitability or reliability of these products for specific user applications. It is the duty of any such user or integrator to perform the appropriate and complete risk analysis, evaluation and testing of the products with respect to the relevant specific application or use thereof. Neither Schneider Electric Industries SAS nor any of its affiliates or subsidiaries shall be responsible or liable for misuse of the information contained herein.

product certifications	CE Ecolab
ambient air temperature for operation	-20...60 °C
ambient air temperature for storage	-30...70 °C
vibration resistance	7 gn, amplitude = +/- 1.5 mm (f = 10...55 Hz) conforming to IEC 60068-2-6
shock resistance	30 gn (duration = 11 ms) conforming to IEC 60068-2-27
IP degree of protection	IP65 double insulation conforming to IEC 60529

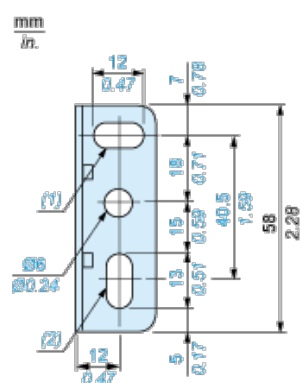
## Offer Sustainability

Sustainable offer status	Not Green Premium product
RoHS (date code: YYWW)	Compliant - since 0841 - Schneider Electric declaration of conformity
REACH	Reference not containing SVHC above the threshold

## Dimensions



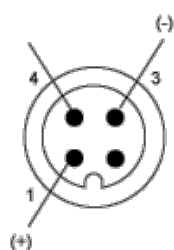
## Bracket fixing



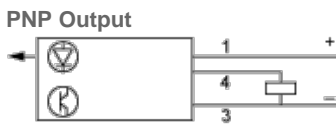
- (1) 1 elongated hole  $\text{Ø} 6 \times 12$
- (2) 1 elongated hole  $\text{Ø} 6 \times 13$

## Wiring Schemes

### Connector



### NO/NC programming



BN : Brown

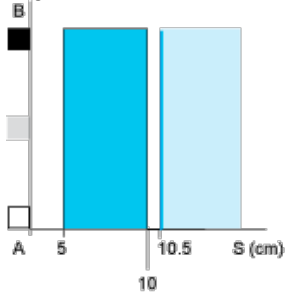
BU : Blue

BK : Black

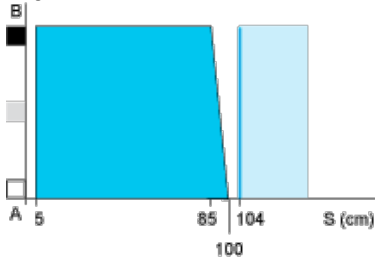
## Detection Curves

### Variation of Usable Sensing Distance $S_u$

#### Adjustment at 10 cm



#### Adjustment at 1 m

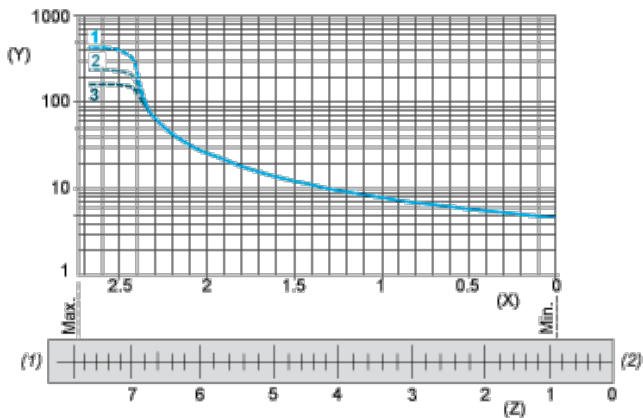


- (1) Black 6%
- (2) Grey 18%
- (3) White 90%
- (4) Sensing range
- (5) Non sensing zone (matt surfaces)

A-B : Object reflection coefficient

- (1) Black 6%
- (2) Grey 18%
- (3) White 90%
- (4) Sensing range
- (5) Non sensing zone (matt surfaces)

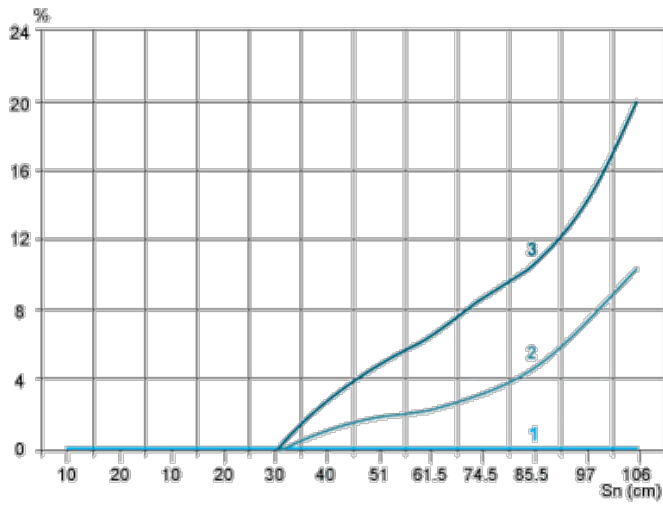
### Sensing Distance Adjustment



1 : White 90%

- 2 : Grey 18%
- 3 : Black 6%
- (Y) Sensing distance (cm)
- (X) Number of turns on potentiometer
- (Z) Setting indicator position (mm)

**Relative Difference in Sensing Distances According to Object Colour**



- 1 : White 90%
- 2 : Grey 18%
- 3 : Black 6%